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09/741,666

12/19/2000

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10/23/2003

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

KEANEY, ELIZABETH MARIE

ART UNIT

PAPER NUMBER

2882

DATE MAILED: 10/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/741,666

Applicant(s)

BUSIO ET AL.

Examiner

Elizabeth Gemmell

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Receipt is acknowledged of the Response filed 23 July 2003.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1,2,4-6 and 12 remain rejected under 35 U.S.C. 102(b) as being anticipated by Ushifusa et al. (US Patent 5,818,168; hereinafter Ushifusa).

Re claim 1: Ushifusa discloses, in figure 1a and throughout the disclosure, a plasma display panel comprising:

- a dielectric layer (7a) separating electrodes (10,5b) from a discharge chamber (3d),
 - wherein the dielectric layer includes transparent metal oxide matrix in which alkyl groups are present (column 9, lines 5+).

Re claim 2: Ushifusa discloses the dielectric layer thicker than 10 micrometers (column 16, line 25).

Re claim 4: Ushifusa discloses the transparent metal oxide is silicon oxide (column 9, line 21).

Re claim 5: Ushifusa discloses the alky group is a methyl or ethyl (column 9, line 24).

Re claim 6: Ushifusa discloses the alkyl group is a methyl (column 9, line 24).

Re claim 12: Ushifusa discloses the dielectric layer being thicker than 15 micrometers (column 16, line 21).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 3,7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ushifusa in view of Ernsthausen (US Patent 4,794,308).

Re claim 3: Ushifusa shows all the limitations above.

However, Ushifusa fails to teach or fairly suggest a dielectric layer having more than one sub-layer.

Ernsthausen discloses, in figure 5 and throughout the disclosure, more than one sub-layer in the dielectric layer (10,118 and 120).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use multiple sub-layers within the dielectric layer disclosed by Ushifusa because the voltage becomes more uniform the more sub-layers present and the stability of the panel is increased (column 8, lines 12+). Thereby, the life

expectancy of the plasma display panel is significantly increased and the image enhanced.

Re claim 7: Ushifusa shows all the limitations as shown above.

However, Ushifusa fails to teach or fairly suggest an absorbing layer that absorbs radiation having a wavelength greater than 175nm.

Ernsthausen discloses an absorbing layer that absorbs radiation having a wavelength greater than 175nm (column 8, lines 18+).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an absorbing layer that absorbs radiation having a wavelength greater than 175nm within the plasma display device disclosed by Ushifusa because the voltage becomes more uniform the more sub-layers present and the stability of the panel is increased (column 8, lines 12+). Thereby, the life expectancy of the plasma display panel is significantly increased and the image enhanced.

Re claim 8: Ushifusa shows all the limitations as shown above.

However, Ushifusa fails to teach or fairly suggest the absorbing layer including zirconium oxide.

Ernsthausen discloses an absorbing layer including zirconium oxide (column 8, lines 18+).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an absorbing layer including zirconium oxide within the

plasma display device disclosed by Ushifusa because the voltage becomes more uniform the more sub-layers present and the stability of the panel is increased (column 8, lines 12+). Thereby, the life expectancy of the plasma display panel is significantly increased and the image enhanced.

Response to Arguments

Applicant's arguments filed 23 July 2003 have been fully considered but they are not persuasive.

The Applicant has argued that Ushifusa does not disclose alkyl groups being present in the formed dielectric layer.

The Examiner respectfully disagrees. Column 9, line 36 discloses that the dielectric layer is provided from alkoxide gels. Although the gel is applied as a precursor and changed to a metal oxide by heat treatment, the final dielectric layer will always contain derivatives of alkyl groups (Table I), as impurities, due to the original precursor being in the form of an alkoxide gel.

The Examiner also respectfully points out that although the specification does disclose two exemplary precursor compounds for a dielectric layer in which alkyl groups are present, DMDMS and MTMS, these compounds are absent from the instant claims. Therefore, any precursor containing alkyl groups can be applied not just precursors containing DMDMS or MTMS.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Gemmell whose telephone number is (703) 305-1937. The examiner can normally be reached on Monday-Thursday 6:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (703) 308-4858. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


emg


EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER